

REMARKS

Reconsideration of this application is respectfully requested.

Allowable Subject Matter

Applicant thanks the Examiner for the allowance of claims 9-20.

Applicant has amended claim 3 to independent form to overcome the objection.

Hence, claims 3-8 are now in condition for allowance.

35 U.S.C. §112 - Rejections

Claim 22 stands rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Applicant respectfully traverses the Examiner's conclusion that claim 22 lacks support in the specification. Support for this limitation exists throughout the specification and drawings. For the Examiner's convenience, the applicant points to one specific example of this support. Paragraph 0019 of the specification discusses Figure 4, which is an embodiment of Figure 2. Figure 2 discloses a first and a second loop. Figure 4 discloses a first signal Xa 240 and a second signal Xb 242. Paragraph 0017 discloses that these signals are converted to digital through ADC 410 and 412. Adaptive filters filter the output stream of the ADCs through adaptive filter transfer functions. Lastly, adders 418 and 420 subtract the output from the adaptive filters from the output of the ADCs. Such a subtraction, used to reduce the effects of FEXT on the received first and second signals, is used to compare the signals before filtering and after filtering. The result is a first and second signal with reduced FEXT effects.

Applicant respectfully submits that claim 22 is in condition for allowance based on the support found in the specification.

35 U.S.C. §102 - Rejections

Claims 1-2 stand rejected under §35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,901,205 by Smith et al. ("Smith").

In regards to claim 1, the Examiner states:

The customer premises includes (inherent) a transceiver (12, 34) configured to reduce the effects of far end cross talk and near end cross talk on a signal from the central office to the customer. The transceiver is an ADSL and the signals are ADSL signals. (See fig. 3 and abstract).

Office Action, page 4, item 9.

Applicant respectfully submits that Smith fails to disclose, "an xDigital Subscriber Line (DSL) transceiver having two or more filters configured to reduce the effects of far end cross talk and near end cross talk on signals from a central office to a customer premises."

As amended, Claim 1 states:

1. An apparatus comprising:
an xDigital Subscriber Line (DSL) transceiver having two or more filters configured to reduce the effects of far end cross talk and near end cross talk on signals from a central office to a customer premises, wherein the transceiver has a first output port to couple the customer premises to the central office by a first communication path comprising a first loop, a second output port to couple the customer premises to the central office by a second communication path comprising a second loop, and the two or more filters reduce the effects of far end cross talk and near end cross talk by comparing signals from the first loop to the second loop.

(Emphasis Added)

The Examiner states that the transceiver is an ADSL and the signals are ADSL signals.

Applicant fails to see where Smith makes this conclusion. In contrast, Smith discloses that transceivers 12 and 34 are merely telephones in general. Col. 3, lines 38-40. A telephone is not an ADSL transceiver. Telephones are solely limited to communicating

voice band communications. Telephones in general do not have circuitry to reduce the effects of near-end to far end crosstalk. No mention is made that these telephones are ADSL transceivers.

Further, even if telephones 12 and 34 were disclosed as ADSL transceivers, this would still be insufficient to disclose, "an xDigital Subscriber Line (DSL) transceiver having two or more filters configured to reduce the effects of far end cross talk and near end cross talk on signals from a central office to a customer premises." The mere fact that a transceiver is an ADSL does not prove that the transceiver is configured to reduce the effects of FEXT and NEXT on signals from the central office to a customer premise. Lastly, Smith is completely silent on the reduction of NEXT and FEXT from communication signals, in general. No mention is made of the existence of crosstalk, nor the desire to reduce its effects. Therefore, Smith fails to disclose this limitation of claim 1. Hence, claim 1 is not anticipated by Smith under 35 U.S.C. §102(b).

Claim 2 depends upon and includes the limitations of claim 1. Therefore, Smith also fails to anticipate claim 2 under 35 U.S.C. §102(b).

35 U.S.C. §103 - Rejections

Claims 1-2 and 21 stand rejected under § 35 U.S.C. 103 (a) as being unpatentable over U.S Patent No. 6,466,588 by Michaels ("Michaels") in view of U.S Patent No. 6,147,963 by Walker ("Walker").

In regards to claim 1, the Examiner states:

The customer premises includes a transceiver (28, 29) configured to reduce the effect of far end cross talk and near end cross talk on a signal from the central office to the customer. The transceiver is an ADSL and the signals are ADSL signals. (See figs. 2 and 3).

Office Action, page 3, item 6.

Applicant submits that Michaels does not disclose, "an xDigital Subscriber Line (DSL) transceiver having two or more filters configured to reduce the effects of far end cross talk and near end cross talk on signals from a central office to a customer premises." In contrast, Michaels merely discloses a transceiver in the form of an xDSL modem 28. The mere fact that an xDSL modem may receive and transmit asymmetric signals is insufficient to show that the modem also reduces the effects of NEXT and FEXT on signals from the central office to a customer premises.

Further, and as stated by the Examiner, Smith does not disclose a second communication path comprising a second loop. Therefore, the modem in Smith would not reduce crosstalk effects from multiple signals. But rather only a single signal.

Applicant also submits that Walker fails to disclose, "an xDigital Subscriber Line (DSL) transceiver having two or more filters configured to reduce the effects of far end cross talk and near end cross talk on signals from a central office to a customer premises." In fact, Walker is completely silent on an xDSL transceiver configured to reduce the effects of far end cross talk and near end cross talk on signals from the central office to a customer premises. In contrast, Walker merely discloses a communication system which includes two high speed communications links with transformers at each end of the links. See Abstract. Therefore, Walker fails to teach or suggest this limitation of claim 1.

Furthermore, even if Michaels and Walker were combined, such a combination would lack "an xDigital Subscriber Line (DSL) transceiver having two or more filters configured to reduce the effects of far end cross talk and near end cross talk on signals

from a central office to a customer premises.” Therefore, in view of the above distinction, neither Michaels nor Walker, individually or in combination, disclose each and every limitation of claim 1. As such, claim 1 is not rendered obvious by Michaels in view of Walker under 35 U.S.C. § 103(a).

Applicant respectfully submits that Michaels does not suggest a combination with Walker, and Walker does not suggest a combination with Michaels because Michaels specifically teaches away from such a combination. It would be impermissible hindsight to combine Michaels with Walker based on applicants’ own disclosure.

Claims 2 and 21 depend upon and include the limitations of claim 1. Therefore, the combination of Michaels and Walker also fail to make claims 2 and 21 obvious under 35 U.S.C. §103(a).

Conclusion

It is respectfully submitted that in view of the amendments and remarks set forth herein, the rejections and objections have been overcome. Applicants reserve all rights with respect to the application of the doctrine equivalents. **Applicant also submits a Request for Continued Examination along with this response. Applicant also submits an Information Disclosure Statement along with this response.** If there are any additional charges, please charge them to our Deposit Account No. 02-2666. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
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